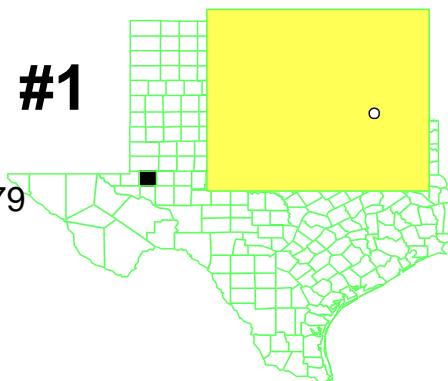


ODESSA CHROMIUM #1 TEXAS

EPA ID# TXD980867279
Site ID: 0602943



EPA REGION 6
CONGRESSIONAL
DISTRICT 19
Ector County
Odessa

Updated: May 18, 2004

Site Description

- Location:**
- The site is located in the vicinity of 44th St. and Brazos Ave., Odessa, Ector County, Texas.
- Population:**
- Approximately 3500 persons live outside the city limits within one mile of the site.
- Setting:**
- The nearest residence is within the site boundaries.
 - The nearest drinking water well is also on-site.
 - Approximately 200 water wells are within 1/2-mile of the site.
 - A municipal water well is within 1,250 feet of the site.
 - The sources of site contamination are within a 10-acre industrial area.
- Hydrology:**
- The estimated surface projection of the ground water plume is more than 20 acres.
 - The Trinity-Edwards aquifer is sandstone and conglomerate rock, overlaid by 20 ft-60 ft. of soil and caliche (hard-pan).
 - The aquifer itself is 60'-100' thick and underlaid by redbed clays.
 - The depth to ground water at the site is 75 feet.

Wastes and Volumes

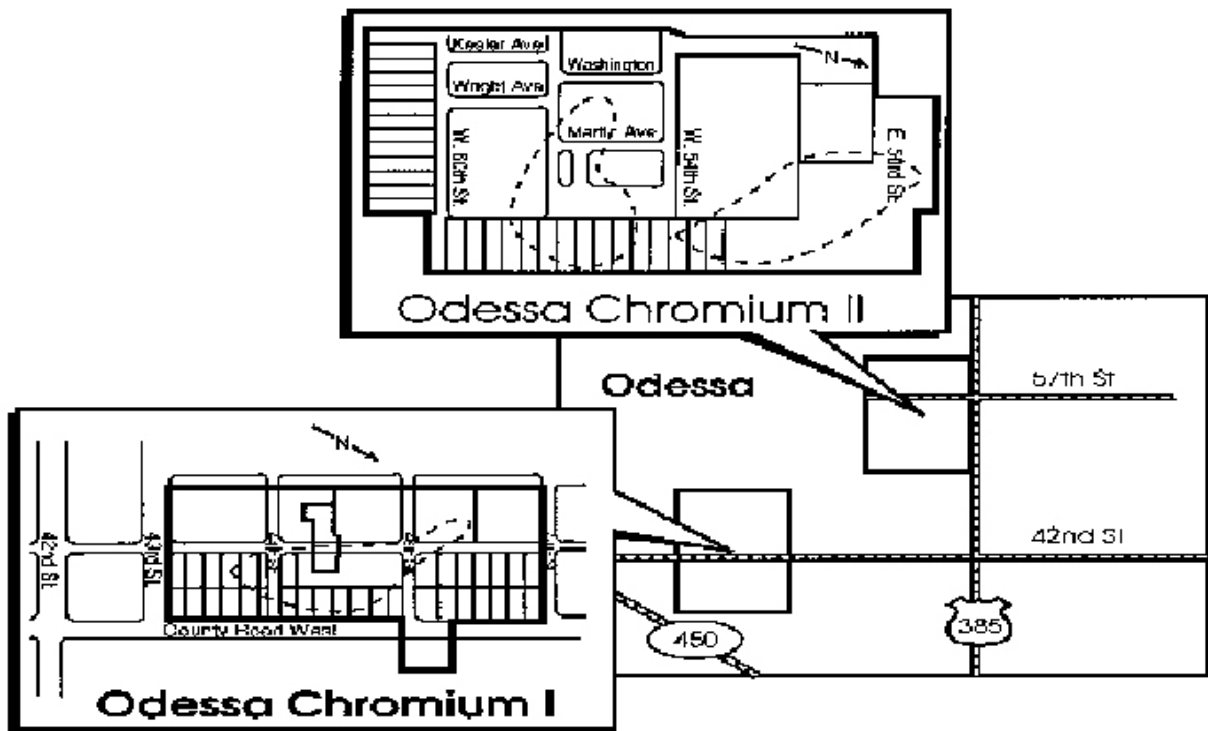
- The principal pollutant found during the Remedial Investigation is hexavalent chromium ranging to 72 parts per million (ppm) in ground water.
- The volume of ground water treated is 191 million gallon as of 8/31/01.

Site Assessment and Ranking

NPL LISTING HISTORY

Site HRS Score: 42.24
Proposed Date: 10/15/84
Final Date: 5/20/86
NPL Update: No. 2

Site Map and Diagram



The Remediation Process

Site History:

- Contamination resulted from chrome plating operations from the late 1960s - 1970s.
- Site remediation has been addressed in two phases by the Texas Commission on Environmental Quality (TCEQ) (formerly Texas Natural Resource Conservation Commission)(TNRCC) and previously known as Texas Water Commission (TWC)).
- The first phase, or operable unit, dealt with development of an alternate water supply (AWS) for area residents and businesses.
- The second phase addressed the source and remediation of the chromium in the ground water.
- The Remedial Investigations and Feasibility Studies (RI/FS) for the two phases were completed in September 1986 (AWS) and March 1988 (Source/Ground Water).

Health Considerations:

- More than a 20-acre portion of the area's sole source aquifer (Trinity) was contaminated.
- Ground water contamination has been documented in 16 of 200 existing wells sampled.
- 5 of 14 monitoring wells contained detectable levels of chromium.
- The affected wells are outside of the city water supply service area.

Record of Decision

Signed: September 8, 1986 (Alternate Water Supply)
Signed: March 18, 1988 (Source Control/Ground Water)

Alternate Water Supply Phase (AWS):

- For this phase, the Record of Decision (ROD) calls for an extension of the existing municipal water supply system to those persons residing within the impacted area.

Source Control/Ground Water:

- This ROD selected extraction and electrochemical treatment of contaminated ground water from the Trinity Aquifer.

<u>Other Remedies Considered</u>	<u>Reason Not Chosen</u>
<hr/> -----Alternate Water Supply----- <hr/>	
1. "No Action"	Did not meet remedial objectives; not protective of human health and the environment
2. Development of surface water supply	High monthly water bills for users, Water Association must be formed
3. Removal via treatment	Stringent operational review required to ensure contaminants are properly removed
4. Development of new well field	Long term supply of water questionable
<hr/> -----Source Control/Ground Water----- <hr/>	
1. "No Action"	Did not meet remedial objectives; not protective of human health or the environment
2. Containment Wall	Difficult to implement; high cost to users
3. Ion Exchange	System will generate a hazardous sludge
4. Chemical Treatment	Treatment may increase Total Dissolved Solids(TDS) of the ground water

Community Involvement

- Community Involvement Plan: Developed 6/85, revised 9/89, and again in 12/92.
- Open houses and workshops: 4/86, 12/87, 9/89, 1/91
- Proposed Plan Fact Sheet and Public Meeting: 7/86 (AWS), 1/88 (Source/Ground Water)
- ROD Fact Sheet: 9/86 (AWS), 3/88 (Source/Ground Water)
- Milestone Fact Sheets: 1/85, 8/85, 12/87, 3/90, 9/90 (TWC), 12/90 (TWC), 1/91 (TWC), 2/94 (TWC)
- Citizens on mailing list: 33
- Constituency Interest: Low to moderate concerns regarding site after alternate water supply was brought on-line.

- Site Repositories: (1) Ector County Library, 321 West Fifth Street, Odessa, TX 79761; Permian Basin Regional Planning Commission, 2910 Laforce Blvd., Odessa, Tx.
(2) EPA's Region 6, files in Dallas, Texas; Please call first, Contact 1(800) 887-6063 for file viewing information and hours open or written request through Freedom of Information Act (FOIA), FOIA Officer, Jerva Duram:
1445 Ross Avenue, Dallas, Tx. 75202
(3) Texas Commission on Environmental Quality (TCEQ), files in Austin, Texas:
Contact: Telephone (512) 239-2920 for file viewing information and hours open;
Address: TCEQ -Records
(Mail Code 199) , Building D,
P.O. Box 13087
Austin, Texas 78711

Technical Assistance Grant

- Availability Notice: 4/11/89
- Letters of Intent Received: Gerald Fugit, Chrom Sites, Inc. - 12/20/90
- Draft Application Received: 4/10/91
- Grant Award: None - application denied
- Current Status: No TAG in process.

Contacts

- **Remedial Project Manager (EPA):** Ernest Franke, PE, RPLS, 214-665-8521, Mail Code: 6SF-AP
- **State Project Manager (TCEQ):** John Malik 512/239-2253, Mail Code 225
- **Community Involvement (EPA):** Ernest Franke PE, 214-665-8521, Mail Code: 6SF-AP
- **Attorney (EPA):** Anne Foster, 214-665-2169, Mail Code: 6RC-S
- **Regional Public Liaison (EPA):** Arnold Ondarza , 303-312-6777
- **State Coordinator (EPA):** Karen Bond , 214-665-6682, Mail Code: 6SF- AP
- **Prime Contractor:** SHAW -E&I : Plant Operations - Dave Duncan
- **Engineer:** SHAW-E&I - Jimmy Gibson, PE

Present Status and Issues

- The provision of an alternate water supply eliminated the potential for exposure to contaminants at the Odessa Chromium #1 site while final groundwater cleanup activities proceed.
- A ground water pump and treat system is operating in conjunction with ferrous sulfate treatment to remove chromium contamination from the aquifer.
- A Explanation of Significant Differences(ESD) for the Record of Decision has been signed/approved by EPA on 10/25/99 to add Ferrous Sulfate in-situ treatment to the ROD.
- Active Ferrous Sulfate in-situ treatment is being re-conducted at the site and has achieved remediation goals in four (**RW-1, 2, 3, 4, 5**, 6, 102, & 106) Trinity Aquifer recovery wells.
- The State of Texas, TCEQ and its Contractor Shaw are evaluating options to achieve Site remedial goals.
- The State of Texas, TCEQ, and its Contractor Shaw conducted sampling and analysis on site wells in March 2003 for both tri and hex-valence chromium. Upon receipt of analytical results further enhancement action will be evaluated.
- The State of Texas, TCEQ, has taken over site and its contractor/s are in-situ treating the remaining site wells,

Benefits

- A safe alternate drinking water supply has been provided for approximately 3,500 people living in the site area.
- The remedy has treated over 246 million gallons of contaminated ground water from the Trinity aquifer of the Odessa area.